REMARKS

Preliminary Amendment

The Examiner is respectfully requested to enter the foregoing amendment prior to examination of the above-identified patent application. In this regard, the present amendment is directed to replacing the originally filed Sequence Listing with the Sequence Listing being filed herewith. The present amendment is also meant to eliminate any confusion which the Examiner may have had concerning the claims. To this end, SEQ ID NOs:6-8, disclosing the amino acid sequence encoded by SEQ ID NOs:1-3, have been added and claims to proteins have been amended accordingly. Further, claims 1, 6 and 21 have been amended to make clear that the claimed proteins sequences are not limited to SEQ ID NOs:6-8. Finally, claim 19 has been amended to eliminate any multiple dependency issues.

Applicants note that the amino acid sequences disclosed in newly added SEQ ID NOs:6-8 are inherently disclosed in the nucleotide sequences of SEQ ID NOs:1-3 and were included in the originally filed sequence listing as the translation of the coding region of SEQ ID NOs:1-3. Therefore, their inclusion in this amendment does not introduce new matter.

Response to the Restriction Requirement

Summary of Restriction Requirement

The Restriction Requirement states that the Examiner has determined that 13 distinct inventions are contained in this application, namely:

I Claims 1-4 (in part), drawn to a fusion protein comprising a fluorescent protein and a calcium binding protein, classified in class 530, subclass 350.

II Claims 5 and 11 (in part, SEQ ID NO: 1), drawn to a fluorescent protein of SEQ ID NO: 1 and a fusion protein comprising thereof, classified in class 530, subclass 350.

III Claims 5 and 11 (in part, SEQ ID NO: 2), drawn to a fluorescent protein of SEQ ID NO: 2 and a fusion protein comprising thereof, classified in class 530, subclass 350.

IV Claims 5 and 11 (in part, SEQ ID NO: 3), drawn to a fluorescent protein of SEQ ID NO: 3 and a fusion protein comprising thereof, classified in class 530, subclass 350.

V Claims 6-10 and 12, drawn to a fused fluorescent protein and a calcium ion indicator comprising thereof, classified in class 530, subclass 350.

VI Claim 13, drawn to a method of use of a protein of claim 6, classified in class 435, subclass 4.

VII Claims 14, 18 and 19, drawn to a DNA encoding the fluorescent protein of claim 1, a vector and a transformant comprising thereof, classified in class 435, subclass 252.3.

VIII Claims 15 and 17 (in part, SEQ ID NO: 1), drawn to a DNA encoding a fluorescent protein of SEQ ID NO: 1 and a variant thereof, classified in class 536, subclass 23.5

IX Claims 15 and 17 (in part, SEQ ID NO: 2), drawn to a DNA encoding a fluorescent protein of SEQ ID NO: 2 and a variant thereof, classified in class 536, subclass 23.5

X Claims 15 and 17 (in part, SEQ ID NO: 3), drawn to a DNA encoding a fluorescent protein of SEQ ID NO: 3 and a variant thereof, classified in class 536, subclass 23.5

XI Claim 16, drawn to a DNA encoding a fluorescent protein of claim 6, classified in class 536, subclass 23.4.

XII Claim 20, drawn to a method of use a transformant of claim 19, classified in class 435, subclass 4.

XIII Claim 21, drawn to a kit comprising a fluorescent fusion protein, classified in class 435, subclass 810.

The Examiner has therefore required that an election be made between these inventions.

Election

In response to the Restriction Requirement mailed, Applicants elect the invention of Group I (claims 1-4), with traverse.

The Restriction Requirement is inappropriate.

Initially, it should be pointed out that the requirement for restriction omits one of the two criteria of a proper requirement as now established by U.S. Patent and Trademark Office policy, as set forth in MPEP 803 (Revision 2, July 1996), viz. that "an appropriate explanation" must be advanced by the Examiner as to the existence of a "serious burden" if a restriction were not required. Due to the aforementioned omission, it is respectfully submitted that the requirement for restriction is improper and, consequently, its withdrawal is respectfully requested.

The restriction should also be withdrawn because there is no serious search burden. In MPEP Chapter 800, the Office sets forth its policy by which Examiners are guided in requiring restriction under 35 U.S.C. §121. Section 803 states that "[i]f the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions." MPEP § 803 [R-2], page 800-3 (Rev. 2, July 1996).

Although Groups I and II-IV differ in that Group I is directed to a recombinant fluorescent protein having the claimed elements and Groups II-IV are directed to specific recombinant amino acid sequences of fluorescent proteins, the underlying concepts are quite similar. A search for recombinant fluorescent protein having the claimed elements should cover areas relevant to specific recombinant amino acid sequences of fluorescent proteins. In other words, if a search area were

relevant to the process of a generic recombinant fluorescent protein, it would also be relevant to specific recombinant fluorescent protein. Therefore, as a practical matter, the searches for the two groups appear to significantly overlap, if not actually be co-extensive. Thus, the search burden would not appear to be serious.

Further, Groups I and V are directed to recombinant or fused fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence. Accordingly, a search for the recombinant fluorescent protein of Group I should cover areas relevant to the fused fluorescent proteins of Group V. In other words, if a search area were relevant to the recombinant fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence of Group I, it would also be relevant to the fused fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence of Group V. Therefore, as a practical matter, the searches for the two groups appear to significantly overlap, if not actually be co-extensive. Thus, the search burden would not appear to be serious.

Finally, Groups I-V are drawn to recombinant or fused fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence whereas Groups VII-XI are drawn to DNA encoding recombinant or fused fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence. DNA encodes amino acids, which then fold into proteins. As such, they are related subject matter. If a search area were relevant to a recombinant or fused fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence of Groups I-V, it would also be relevant to the DNA encoding a recombinant or fused fluorescent proteins which demonstrate Ca^{2+} ion dependent fluorescence of Group V. Therefore, as a practical matter, the searches for the groups appears to significantly overlap, if not actually be co-extensive. Thus, the search burden would not appear to be serious.

Furthermore, Group XIII is directed to a kit comprising components selected from Group I and Group V, and as such, should be examined with both. It is abundantly clear that the searches for Group XIII significantly overlaps, if it is not actually co-extensive with Group I and Group V. Thus, the search burden would not appear to be serious. In fact, it would be a serious burden on the Examiner to separately search Group I, Group V and then Group XIII when the searches of Group I and Group V clearly are relevant to Group XIII. Accordingly, at a minimum, the restriction should be withdrawn with respect to Groups I, V and XIII.

Finally, as the Examiner appreciates, in order to justify a requirement for restriction, the difference between the invention defined by the various groups of the claims must be material. Despite this requirement, the Examiner has not stated or offered a definition of what is "materially different" to justify a requirement for restriction, or offered an explanation as to why the mentioned differences are material for restriction requirement purposes.

Absent a definition or explanation of this concept, it is respectfully submitted that the Examiner has not explained how such a difference is "materially different" so as to justify restriction between the Groups. In this regard, the Examiner has merely stated that the two Groups are materially different, and thereby concluded that the inventions are distinct. However, the Examiner does not indicate how the difference between the two groups is a material difference to support a requirement for restriction, especially when the search areas for the two groups of invention would significantly overlap.

It is also important for the Examiner to understand that Applicant has paid a filing fee for an examination of all the claims in this application. It is respectfully submitted that such an

examination in full is part of the *quid pro quo* for which Applicants have the paid the fees for all of the claims under examination. If, however, the Examiner refuses to examine all the claims paid for when filing this application and persists in requiring Applicant to file a divisional application to allow prosecution of both groups of claims, the Examiner is essentially forcing Applicant to pay duplicative fees for the non-elected or withdrawn claims. In view of the foregoing, Applicant respectfully requests that the restriction requirement be reconsidered and withdrawn, in view of the lack of a serious burden and the lack of material differences for examination purposes between the Groups.

If the Examiner has any questions, or wishes to discuss this matter, the Examiner is respectfully invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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